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(54) Title: METHOD FOR CELL SURFACE DISPLAY OF TARGET PROTEINS USING FADL OF E. COLI

(57) Abstract: The present invention relates to an expression vector which can effectively express target proteins or peptides on the surface of cells using an outer membrane protein (FadL) of E. coli as a surface anchoring motif. Also, the present invention relates to microorganisms transformed with the expression vector, and a method for stably expressing large amounts of target proteins on the surface of cells by culturing the transformed microorganisms. Furthermore, the present invention relates to a production method of protein arrays, a production method of antibodies, and a bioconversion method, the methods being characterized by using target proteins which have been expressed on the cell surface by the inventive method. In addition, the present invention relates to a method for improving target proteins by the inventive surface expression method. The present invention allows target proteins with normal functions to be expressed on an outer cell membrane. Thus, the present invention will be useful in recombinant live vaccines, the screening of various peptides or antibodies, whole-cell adsorbents for heavy metal removal or waste water treatment, whole-cell bioconversion, and the like.